

Applicant's Record Under § 713.04 of Telephone Interview With Examiner

Applicant respectfully submits the following record of the telephone interview of July 9, 2002, under M.P.E.P. § 713.04.

The following persons participated in the interview: Examiner Tilahun Gesesse, Supervisory Patent Examiner Edward F. Urban, and Applicant's attorney R. Ross Viguet. Independent claims 1, 6, 9, 18, 26, and 32 were discussed in reference to the applied art, *Carney* and *Kobayashi*. With respect to claims 1 and 6, Examiner Urban suggested that amendment of these claims to make it clear that it is the current signals for which tuner operation is adjusted, such as by expressly reciting measuring and determining, would make Applicant's position with respect to *Carney* not meeting the claims more clear. It was agreed that the limitations of claim 36 were not taught by *Carney*. With respect to claims 9, 18, and 26, it was agreed that the limitations of these claims were not taught by *Kobayashi*.

REMARKS/ARGUMENTS**I. General**

Claims 1-37 are pending in the present application. Claims 38-53 have been added by the present Amendment. Claims 1-6 and 32-33 stand rejected under 35 U.S.C. § 102(b). Claims 9, 12, 17-19, 21, 26, and 27 stand rejected under 35 U.S.C. § 102(e). Claims 7, 8, 10, 11, 13-16, 20, 22-25, 28-31, and 34-37 stand rejected under 35 U.S.C. § 103(a). Applicant respectfully traverses the rejections of record.

Applicant's attorney thanks the Examiner and his Supervisory Patent Examiner for the time and consideration given in conducting the telephone interview of July 9, 2002. Applicant has made amendments to claims 1 and 6 which are believe to be in the spirit of those discussed during the telephone interview. Applicant also has more fully set forth distinguishing arguments with respect to the independent claims, as well as provided detailed discussion of dependent claims, herein.

II. The 35 U.S.C. § 102 Rejections

Claims 1-6 and 32-33 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Carney, U.S. patent number 5,590,156 (hereinafter *Carney*). Claims 9, 12, 17-19, 21, 26, and 27 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Kobayashi, U.S. patent number 6,243,570 (hereinafter *Kobayashi*).

The prior arguments with respect to rejection of the claims in light of the applied references submitted by Applicant in the Amendment filed January 28, 2002, are believed to still be applicable to the above rejections of record and are, accordingly, incorporated by reference herein. However, for the sake of brevity, those arguments will not be repeated herein. Applicant respectfully requests that the Examiner reconsider Applicant's previous arguments, with respect to the applied art neither teaching every element of the claims nor showing the identical invention in as complete of detail as recited in the claims as required for a proper rejection under 35 U.S.C. § 102, see M.P.E.P. § 2131.

A. The 35 U.S.C. § 102(b) Rejections

The 35 U.S.C. § 102(b) rejections of record are based upon the disclosure of *Carney* which, as previously pointed out by Applicant, teaches a system in which a plurality of digital tuners are provided in a multichannel basestation, see column 4, line 66, through column 5, line 5. The gains associated with the digital tuners of *Carney* are each selected, *a priori*, to provide increased dynamic range of the overall system, see column 7, lines 49-52.

Accordingly, it is Applicant's position that *Carney* assigning a channel to a user based upon the received signal strength of a signal received from the user, wherein the assigned channel is associated with an amplifier having its gain predetermined without regard to the particular user's signal being assigned the channel, does not meet the means for changing the operating characteristics of the tuner under control of means for determining, from the measurable characteristics which are present in a particular set of signals, certain desirable tuner operating characteristics, recited in claim 1. In response to Applicant's previous assertion of this position, the Examiner responds that *Carney* discloses a digital tuner section including an amplifier wherein the gain of the first and second tuner sections are adjusted independently to insure that the relatively strong signals are not clipped by the first tuner and

that the relatively weak signals may be correctly detected by the second tuner, see April 11, 2002 Office Action at page 6.

However, *Carney* expressly teaches that the gain of a first digital tuner is set to service channels having the largest expected received signal strength indication and that the gain of the second digital tuner is set to service channels having a lower expected received signal strength indication, and so on, see column 7, lines 52-57. Accordingly, operating characteristics of the tuners of *Carney* are not taught to be changed in response to measurable characteristics which are present in the signals, but rather the gain of the tuners of *Carney* are taught to be set based upon "the collective sum of the expected signal amplitudes in the bandwidth covered by its respective digital tuner section," column 5, lines 50-52. Irrespective of whether or not the tuners of *Carney* are adjusted independently, these tuners are not taught to be adjusted in response to determining from the measurable characteristics which are present in a particular set of signals certain desirable tuner operating characteristics.

In responding to Applicant's previous assertions, the Examiner further states that "[t]he examiner strongly believes that *Carney* teaches 'changing operation characteristic of tuner' by adjusting its gain based on received signal strength," Office Action mailed April 11, 2002, at page 6. However, as shown above, *Carney* expressly teaches that gain values are set based upon expected signal amplitudes and not received signal strength, see column 5, lines 50-54. Accordingly, it is respectfully asserted that claim 1 and the claims dependent therefrom are allowable under 35 U.S.C. § 102 over *Carney*.

In an effort to make the above asserted position more clear to the Examiner, Applicant has amended claim 1 to expressly recite "determining from a measurement of the measurable characteristics which are present in a particular set of signals input to said tuner", consistent with Examiner Urban's suggestion during the telephone interview of July 9, 2002. The claim amendment has not been made to narrow the scope in the claim in the face of the prior art, but rather in an effort to expressly recite that which was already present in the claim. It is respectfully asserted that the adjustment of amplifier gain in *Carney* based upon expected signal amplitudes in the bandwidth covered by a tuner cannot be read to anticipate the claim.

Applicant previously asserted that the claims dependent from claim 1 recite limitations making the above identified distinctions even more clear. In addressing Applicant's statements, the Examiner has not expressly addressed claim 2, see the Office Action mailed April 11, 2002, at page 6. Therefore, Applicant again brings to the Examiner's attention that claim 2 recites "wherein said operating characteristics changing means includes[] means for changing power consumption levels with respect to certain of said tuner components." Even assuming, *arguendo*, that *Carney* discloses means for changing power levels with respect certain tuner components, as asserted by the Examiner in the rejection of record, this is not enough to meet the language of the claim because the means for power consumption levels is recited to be included with the means for changing operating characteristics, which is operable under control of the means for determining, from the measurable characteristics which are present in the particular set of signals, certain desirable tuner operating characteristics.

Moreover, Applicant asserts that the assigning of a channel to a user which corresponds to a particular tuner, as taught by *Carney*, does not change the power consumption levels of components of that tuner as recited in the claim. Accordingly, the disclosure of *Carney* does not teach or suggest means for changing the operating characteristics of the tuner, including means for changing power levels with respect to tuner components, under control of determining operating characteristics from measurable characteristics of a particular set of signals.

In addressing Applicant's assertions with respect to claim 3 reciting determining optimum operating characteristics, the Examiner appears to assert that it is optimum operation of the tuner system of *Carney* to provide amplification of strong signals to avoid their clipping and weak signals to facilitate their detection, see Office Action mailed April 11, 2002, at page 7. The extent of the disclosure in *Carney* with respect to this aspect of the system appears to include only that "[t]his approach thus permits both relatively strong and relatively weak amplitude signals to be captured and processed by the same basestation," column 9, lines 4-6. However, claim 3 recites that the means for changing operating characteristics, which is operable under control of the means for determining, from the measurable characteristics which are present in the particular set of signals, includes means for determining optimum operating characteristics. Selecting amplification levels *a priori*, as

disclosed in *Carney*, does not teach or suggest a determination of optimum operating characteristics from determined operating characteristics present in a particular set of signals.

Moreover, without the benefit of hindsight gleaned from Applicant's own disclosure, the Examiner could not say that the disclosure of *Carney* relied upon by the Examiner in rejecting claim 3 teaches or suggests optimum operating characteristics. Specifically, clipping of the relatively strong amplitude signals can generally be avoided at any gain level below saturation of the associated amplifier. Similarly, capturing of relatively weak amplitude signals can generally be provided at any gain level above the thermal noise threshold of the amplifier. Without the benefit of Applicant's disclosure, there is nothing in the disclosure of *Carney* to have taught one of ordinary skill in the art to optimize the gain settings of *Carney*.

The only express disclosure with respect to optimization appearing in *Carney* appears to be the statement that "[t]he gain of the first digital tuner section allocated to processing relatively stronger signals can be optimized as needed, so that spurious sidelobes are not created in adjacent channels," column 3, lines 24-27. However, this statement is made with regard to a system in which the gain of each digital tuner is pre-adjusted to serve signals having an RSSI falling within a predetermined range, see column 3, lines 13-23. Accordingly, there is no disclosure with respect to means for determining optimum operating characteristics depending upon determined operating characteristics, as recited in the claim.

In addressing Applicant's assertions with respect to *Carney* not teaching changing power levels of components of the tuner to the determined optimum level, the Examiner appears to assert that *Carney* teaches adjusting the gain of a tuner based on receive signal strength and, therefore, teaches adjustment of the tuner by changing the power level in order to achieve optimum operation of the tuner, see the Office Action mailed April 11, 2002. As shown above, *Carney* does not teach adjusting the gain of a tuner based upon the receive signal strength of a signal, but instead teaches selecting a gain of the amplifiers based upon expected signal levels and then assigning signals to channels based upon the receive signal strength. Accordingly, the disclosure of *Carney* is insufficient to meet the claim.

Moreover, the Examiner's rejection of record with respect to claims 2-4 relies upon Figure 5 of *Carney* for support, see Office Action mailed April 11, 2002, at pages 2 and 3. However, Figure 5 merely shows a flow diagram in which the received signal strength indication of a user's signal is periodically re-determined and, if appropriate, a different channel is assigned to the user based upon the re-determination, see Figure 5 and column 8, lines 40-64. This disclosure is insufficient to teach or suggest the claims.

The Examiner has not expressly addressed Applicant's previously stated position that the rejection of claim 5 based upon inherency is improper according to Office policy and well established law, see M.P.E.P. § 2112, citing *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990), see also *In re Robertson*, 49 U.S.P.Q.2d 1949 (Fed. Cir. 1999). Instead, the Examiner merely re-presents the bald assertion that the limitations of claim 5 are inherent in the disclosure of *Carney*. Applicant requests that the Examiner consider Office policy and the guiding law and either establish a proper rejection under inherency, in order to give Applicant a full and fair opportunity to consider the patentability of the claim, or withdraw the rejection of the claim.

The rejection of independent claim 6 is now based upon the disclosure of *Carney* rather than *Kobayashi*, see Office Action mailed April 11, 2002, at page 2. However, in the statements of records with respect to where the recited limitations of claim 6 may be found in the applied art, the Examiner relies upon the disclosures of *Carney* and *Kobayashi*. Accordingly, it appears that the Examiner concedes that neither such reference meets the claim and, therefore, the claim is not properly rejected as anticipated under 35 U.S.C. § 102.

Moreover, in order to establish a proper rejection based upon the combination of multiple references, the Examiner must at a minimum provide some statement of motivation as to why one of ordinary skill in the art would have been led to combine the references. Moreover, the Examiner must proffer a modification to the primary reference which is sufficient to meet the claim. Accordingly, it is respectfully asserted that claim 6 and the claims dependent therefrom are not properly rejected as obvious under 35 U.S.C. § 103.

However, as discussed during the telephone interview of July 9, 2002, Applicant has amended claim 6 to expressly recite the assessment of the incoming signal environment is a

function of "the signals then being processed". It is believed that the amendment does not narrow the scope of the claim, but rather further makes clear that the incoming signal environment is associated with the signals currently being processed by the tuner. It is respectfully asserted that neither *Carney* nor *Kobayashi* anticipate claim 6 or the claims dependent therefrom.

In the Office Action mailed April 11, 2002, the Examiner has not expressly addressed Applicant's previous assertions with respect to independent claim 32. Specifically, Applicant has pointed out that claim 32 recites that adjustment circuitry is operable to change power levels to certain tuner components in accordance with a determination as to which signal set is then being processed. As previously pointed out by Applicant, *Carney* does not teach or suggest determination circuitry for selecting which signal set is being processed at a point in time. The rejection of record with respect to claim 32 does not address this deficiency, nor has the Examiner offered any statement to the contrary.

Similarly, the rejections of record do not address the limitations of claim 33, as previously pointed out by Applicant. Specifically, claim 33 recites that the adjustment circuitry of claim 32 is operable in cooperation with the determination circuitry for changing the component mix of the tuner. The Examiner has not identified any aspect of *Carney* meeting this claim.

B. The 35 U.S.C. § 102(e) Rejections

The 35 U.S.C. § 102(e) rejections of record are based upon the disclosure of *Kobayashi*. *Kobayashi* teaches an RF tuning circuit in which the tuning frequency is adjusted based upon a detected temperature, see column 2, lines 22-29.

Independent claim 9 recites "determining optimal tuner operating characteristics from knowledge of the signals being processed by the tuner" Similarly, independent claim 18 recites "determining tuner operating characteristics from knowledge of the signals being processed by the tuner" Independent claim 26 recites "determining desired operating characteristics of certain tuner components from knowledge of the signals being processed by the tuner"

In rejecting the above identified aspects of claims 9, 18, and 26, the Examiner again asserts that "*Kobayashi* discloses determining optimal tuner operating characteristics from knowledge (based on temperature) of the signals being processed by the tuner," relying upon the disclosure of Figure 5 of *Kobayashi* for support, see Office Action mailed April 11, 2002 at page 4. As conceded by the Examiner, the knowledge from which operating characteristics are determined according to *Kobayashi* is temperature. The temperature knowledge of *Kobayashi* is the ambient temperature of the radio receiver, see column 3, lines 33-34.

Applicant previously stated that the language of the claims is broad in the sense that it can be read upon a variety of knowledge, but that the knowledge recited in the claim is clearly limited to knowledge of the signals being processed by the tuner. The Examiner erroneously concludes that "Applicant has admitted that the language of the claims is broad in the sense that it can be read upon the prior art," see Office Action mailed April 11, 2002, at page 7. However, this conclusion is not correct. Applicant's statement was, and is, that the knowledge of the claim language is limited to knowledge of the signals being processed by the tuner. Only by ignoring the plain language of the claims could the Examiner conclude that the claims read upon knowledge of the temperature of a radio receiver. Accordingly, Applicant respectfully asserts that independent claims 9, 18, and 26, as well as the claims dependent therefrom, are not anticipated by the disclosure of *Kobayashi*.

In further addressing Applicant's previous statements regarding the patentability of claims 9, 18, and 26, the Examiner offers that "Applicant's claims are so broad to read on any tuner in the field endeavor," Office Action mailed April 11, 2002, at page 7. Applicant has shown that the tuner of *Kobayashi* does not teach the invention of the claims. If the Examiner believes the claims to be in the prior art, the Examiner is requested to properly reject the claims by identifying a proper prior art reference and referencing the disclosure therein relied upon to meet the claims, as required by M.P.E.P. § 707.05. If however, the rejection of these claims over "any tuner in the field endeavor" is based upon the Examiner's personal knowledge or is based upon Official Notice, the Examiner is hereby requested to provide and make of record an affidavit setting forth his data as specifically as possible for the assertion, as provided for under 37 C.F.R. § 1.104(d)(2), or the Examiner is hereby requested to cite a reference in support of the assertion, as provided for under M.P.E.P.

§2144.03. Otherwise the rejection of claims 9, 18, and 26, and the claims dependent therefrom should be withdrawn.

In addressing the 35 U.S.C. § 102(e) rejections of record, Applicant previously showed where the dependent claims made the above distinctions between *Kobayashi* and the claimed invention even more apparent. For example, Applicant has pointed out that claim 19 recites that the determining circuit includes a circuit for taking signal measurements of the signal being processed by the tuner, not shown by *Kobayashi*. Applicant further pointed out that claim 17 recites adjusting the number of components that are active at any particular time and that the Examiner has provided no specific guidance as to what within *Kobayashi* the Examiner is reading to meet this aspect of the claims.

Moreover, claim 17 includes the limitations of claim 14, from which it depends, reciting adjusting power consumption of certain components with the tuner. In the 35 U.S.C. § 103 rejection of record with respect to claim 14 the Examiner concedes that *Kobayashi* does not teach this aspect of the claims. 35 U.S.C. § 112, fourth paragraph, states that “[a] claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.” Accordingly, if the limitations of claim 14 are not present in the disclosure of *Kobayashi*, it follows *a fortiori* that claim 17, dependent therefrom and reciting further limitations, is also not met by the disclosure of *Kobayashi*.

III. The 35 U.S.C. § 103 Rejections

Claims 7, 8, 10, 11, 13-15, 20, 22-24, and 28-30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kobayashi* in view of Grandfield et al., U.S. patent number 5,564,092 (hereinafter *Grandfield*). Claims 16, 25, and 31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kobayashi* in view of Wheelless, U.S. patent number 5,023,934 (hereinafter *Wheelless*). Claims 34-37 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Carney* in view of *Wheelless*.

The prior arguments with respect to the Examiner's *prima facie* case of obviousness submitted by Applicant in the Amendment filed January 28, 2002, are believed to still be applicable to the above rejections of record and are, accordingly, incorporated herein. However, for the sake of brevity, those arguments will not be repeated herein. Applicant

respectfully requests that the Examiner reconsider Applicant's previous arguments, with respect to insufficient motivation to combine the references and not all claimed elements being taught by the combination of references, in combination with the comments set forth below.

It is initially pointed out that, as shown above with respect to the 35 U.S.C. § 102 rejections of record, *Kobayashi* does not meet all elements of independent claims 9, 18, and 26 from which claims 10, 11, 13-15, 20, 22-24, and 28-31 depend. Similarly, as shown above with respect to the 35 U.S.C. § 102 rejections of record, *Carney* does not meet all elements of independent claim 32 from which claims 34-37 depend. Moreover, the disclosures of *Grandfield* and *Wheless* do not cure the deficiencies in the disclosures of *Kobayashi* and *Carney*. Therefore, it is asserted that the proffered combinations do not establish a *prima facie* case of obviousness with respect to dependent claims 10, 11, 13-15, 20, 22-24, 28-31 and 34-37.

Moreover, independent claim 6 stands rejected over the disclosure of *Carney*. However, claims 7 and 8, dependent from claim 6, stand rejected over the disclosure of *Kobayashi* in view of *Grandfield*. The Examiner has not shown how the disclosure of *Kobayashi* meets the limitations of base claim 6 and, therefore, has not established a proper rejection of claims 7 and 8.

Applicant has previously shown that the Examiner's proffered combination of references does not teach or suggest that which is claimed. Applicant believes these assertions to still be valid in light of the rejections of record and, therefore, requests Examiner to reconsider Applicant's previous assertions. In addressing Applicant's previous statements, the Examiner offers only that Applicant argued that *Grandfield* and *Wheless* are not combinable to meet the limitations of the claims and that the Examiner disagrees since both references are in the area of signal processing techniques and wireless communication. However, the mere assertion that the references are in the same field of endeavor (both references are in the area of signal processing techniques and wireless communication) is nothing more than an assertion that the references are analogous art. That the references are analogous art is a threshold determination with respect to their availability for application in a 35 U.S.C. § 103 rejection, see M.P.E.P. § 2141.01(a). However, asserting that the references

are analogous is insufficient to establish proper motivation to combine the references, see M.P.E.P. § 2143.01.

Moreover, Applicant's previously stated position with respect to the 35 U.S.C. § 103 rejections of the dependent claims is that: (1) there is no motivation as required under 35 U.S.C. § 103 to have combined *Kobayashi* and *Grandfield* to result in the Examiner proffered combination with respect to claims 14, 15, 20, 22-24, and 28-30; and (2) even if one of ordinary skill in the art were to make the modifications to *Carney* or *Kobayashi* in view of *Grandfield* or *Wheless* as proffered by the Examiner, the limitations of the claims would not be met.

With respect to the first identified position above, Applicant has shown that the Examiner's statement of motivation to combine *Kobayashi* and *Grandfield* is circular and, therefore, does not properly establish motivation for a rejection under 35 U.S.C. § 103. The Examiner has not resolved this deficiency in the rejections of record.

With respect to the second identified position above, Applicant has shown how the proffered combinations do not meet the claims. For example, claim 7 recites selecting an optimum power level for the tuner and claim 8 recites selecting optimum power levels for certain components of the tuner. However, *Grandfield* teaches adjusting the output power level of a radio frequency amplifier, see column 2, lines 9-24, and Figure 4. If *Kobayashi* were modified in view of *Grandfield* as proffered by the Examiner, the radio frequency amplifier of *Kobayashi* would have the output power level adjusted, which would not meet the claims.

Claim 10 recites that determining optimal tuner operating characteristics includes taking signal measurements of the signal being processed by the tuner. Similarly, claim 13 recites that determining optimal tuner operating characteristics includes monitoring the RF input and the inband receive signal strength. It is not understood how the monitoring of a signal for adjustment of the output power level of a radio frequency amplifier of *Grandfield* in combination with the temperature adjusted radio frequency tuning circuit of *Kobayashi* can be read to meet these limitations of the claims.

Claim 11 recites that the signal measurement determines the total power across all channels. Neither the disclosure of *Kobayashi* nor the disclosure of *Grandfield* teach a determination of the total power across all channels, nor has the Examiner asserted otherwise.

Claims 14, 23, 28 recite adjusting power consumption and claims 15, 24, and 29 recite controlling current levels. Claim 20 recites a circuit for determining total power across all channels. Claim 22 recites a circuit for monitoring the RF input and the inband receive signal strength. Claim 30 recites the adjusting circuitry adds or subtracts certain components into or out of the tuner. Even if the Examiner's statement with respect to the teachings of *Kobayashi* and *Grandfield* with respect to these claims are accurate, the statement is not relevant to the patentability of the claims as it does not address the language of the claims.

Moreover, claims 14, 15, 23, 24, 28, and 29 recite the respective adjusting power consumption and controlling current levels are with respect to particular components of the tuner. The proffered rejection of these claims leaves this aspect to the claim language completely unaddressed.

With respect to claim 31, the Examiner concedes that *Kobayashi* does not disclose channel sweep circuitry and static determination circuitry operable at different times. The Examiner attempts to cure this deficiency in the disclosure of the primary reference by introducing *Wheless*, asserted to disclose both channel sweeping and static determination circuitry. However, a review of the portion of *Wheless* relied upon by the examiner in rejecting the claims reveals that *Wheless* does not teach sweeping of channels, but rather a 360° azimuthal sweep of an area with a radar signal. It is respectfully asserted that this disclosure of *Wheless* is insufficient to have led one of ordinary skill in the art to modify *Kobayashi* to meet the claims.

Similar to the rejection of claim 31 above, claims 34-37 stand rejected over a combination of art including *Wheless*. Here, however, the Examiner concedes that the primary reference *Carney* does not disclose channel sweep circuitry and static determination circuitry operable at different times. As discussed above, it is respectfully asserted that the disclosure of *Wheless* is insufficient to cure the identified deficiency in the primary reference.

The Examiner has not addressed the previously identified deficiencies in the proffered combinations of the applied art in the Office Action mailed April 11, 2002. Accordingly, Applicant reasserts that the claims are allowable over the 35 U.S.C. § 103 rejections of record.

IV. The New Claims

New claims 38-53 have been added by this Amendment. No new matter has been added by the new claims as the subject matter of these claims appears in the specification as filed, see *inter alia* page 3, line 1, through page 4, line 4, page 10, lines 1-13, and page 12, lines 23-25.

New independent claims 38 and 46 recite providing input signal environmental assessment and providing power control of a tuner in response thereto. The art of record does not teach or suggest these aspects of the new claims. Moreover, the new dependent claims add additional novel and non-obvious limitations not present in the art of record. Accordingly, it is respectfully asserted that the new claims are allowable over the art of record.

V. Summary

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Version with markings to show changes made."

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

Application No.: 09/224,219

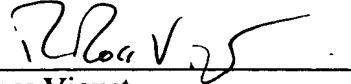
Docket No.: 49581/P016US/09806411

Applicant respectfully requests that the Examiner call the below listed attorney if the Examiner believes that a discussion would be helpful in resolving any remaining problems.

Dated: July 11, 2002

Respectfully submitted,

By



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Version With Markings to Show Changes Made

1. (Amended) A tuner for extracting specific signals from a set of signals on a carrier wherein the set of signals have at least one of a set of measurable characteristics, said tuner comprising:

means for determining from a measurement of the measurable characteristics which are present in a particular set of signals input to said tuner certain desirable tuner operating characteristics; and

means operable under control of said determining means for changing the operating characteristics of said tuner.

6. (Twice Amended) The method of operating a tuner, said method comprising the steps of:

assessing from time to time the incoming signal environment, wherein an assessment of said incoming signal environment is a function of the signals then being processed by said tuner;

based upon said assessed incoming signal environment selecting an operating level for said tuner; and

setting the operation of said tuner consistent with said selected operating level.

38. (New) A system for processing signals, said system comprising:

means for providing input signal environmental assessment, wherein an input signal environment assessed by said input signal environmental assessment means comprises a set of signals;

means for determining a power level from input signal environmental assessment information, wherein said power level determining means is coupled to said input signal environmental assessment means for communication of said input signal environmental assessment information;

means for providing power control in accordance with determined power level information, wherein said power control means is coupled to said power level determining means for communication of said determined power level information; and

means for tuning a selected signal from said set of signals, wherein said tuning means is coupled to said power control means for power control of said tuning means by said power control means.

39. (New) The system of claim 38, wherein said input signal environmental assessment means determines a signal density with respect to said set of input signals.

40. (New) The system of claim 38, wherein said input signal environmental assessment means comprises:

means for sweeping signals of said set of signals and acquiring signal level information with respect thereto.

41. (New) The system of claim 38, wherein said input signal environmental assessment means comprises:

means for acquiring a total signal power level associated with said set of signals.

42. (New) The system of claim 38, wherein said power level determining means utilizes acquired knowledge of the environment to determine a correct amount of power reduction to be applied to said tuner.

43. (New) The system of claim 38, wherein said power level determining means utilizes a third order input intercept of said tuner in providing said determined power level information.

44. (New) The system of claim 38, wherein said power control means comprises: means for changing current utilized by components of said tuner.

45. (New) The system of claim 38, wherein said power control means comprises: means for selecting mixer cores from a plurality of mixer cores of said tuner for use in processing a signal.

46. (New) A method for processing signals, said method comprising:
providing input signal environmental assessment, wherein an input signal environment assessed comprises a set of signals;
determining a power level from input signal environmental assessment information obtained from said input signal environmental assessment;
providing power control in accordance with determined power level information obtained from said determining a power level from said input signal environmental assessment information; and
tuning a selected signal from said set of signals, wherein a power level of a tuner providing said tuning is controlled by said power control provided in accordance with said determined power level information.

47. (New) The method of claim 46, wherein said input signal environmental assessment is determined at least in part using a signal density with respect to said set of input signals.

48. (New) The method of claim 46, wherein said input signal environmental assessment comprises:
sweeping signals of said set of signals and acquiring signal level information with respect thereto.

49. (New) The method of claim 46, wherein said input signal environmental assessment comprises:
acquiring a total signal power level associated with said set of signals.

50. (New) The method of claim 46, wherein said determining said power level comprises:

acquiring knowledge of the signal environment to determine a correct amount of power reduction to be applied to said tuner.

51. (New) The method of claim 46, wherein said determining said power level comprises:

utilizing information with respect to a third order input intercept of said tuner in providing said determined power level information.

52. (New) The method of claim 46, wherein said determining said power control comprises:

changing current utilized by components of said tuner.

53. (New) The method of claim 46, wherein said determining said power control comprises:

selecting mixer cores from a plurality of mixer cores of said tuner for use in processing a signal.